S

ENGINEERING CHANGE NOTICE

Page 1 of 7

1. ECN 655162

Proj. ECN

2. ECN Category (mark one)	3. Originator's Name, Organization, MSIN, and Telephone No.	4. USQ Required?	5. Date
Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersedure ☐ Cancel/Void ☐	DL McGrew/TFR&SO/R3-25/372-2296	☐ Yes ☒ No	April 7, 2000
	6. Project Title/No./Work Order No. Project W-314, Tank Farm Restoration and Safe Operations	7. Bldg./Sys./Fac. No. N/A	8. Approval Designator ESQ
	9. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC HNF-SD-W314-CMP-001 Rev. 0	10. Related ECN No(s). N/A	11. Related PO No. N/A

12a. Modification Work	12b. Work Package No.	12c. Modification Work Completed	12d. Restored to Original Condition (Temp. or Standby ECNs only)
☐ Yes (fill out Blk. 12b) ☒ No (NA Blks. 12b, 12c, 12d)	N/A	N/A Design Authority/Cog. Engineer Signature & Date	N/A Design Authority/Cog. Engineer Signature & Date

13a. Description of Change

13b. Design Baseline Document? ☒ Yes ☒ No

This project management document is being revised to implement the results of W-314 Phase 1 and Phase 2 rebaselinings that occurred during FY99 and FY00. Also, updates are included for organizational changes, and to simplify, integrate, and cross reference project management documentation and QA requirements.

14a. Justification (mark one)	14b. Justification Details
Criteria Change ☒ Design Improvement ☐ Environmental ☐ Facility Deactivation ☐ As-Found ☐ Facilitate Const. ☐ Const. Error/Omission ☐ Design Error/Omission ☐	See above "This modification will not increase collective dose since it has no impact on radiological sources, contamination control, or shielding." USQ no required per HNF-IP-0842, IV, 5.4, Rev. 12. Any temporary or permanent changes to facilities and procedures covered by the RPP Authorization Basis that result from the requirement of this document will have a USQ evaluation performed prior to initiation of field work activities.

15. Distribution (include name, MSIN, and no. of copies)

RELEASE STAMP

DATE: APR 19 2000 STA: A HANFORD RELEASE ID: 2

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1): 656162

16. Design Verification Required	17. Cost Impact		18. Schedule Impact (days)
	ENGINEERING	CONSTRUCTION	
☐ Yes	Additional ☐ $ N/A	Additional ☐ $ N/A	Improvement ☐ N/A
☒ No	Savings ☐ $	Savings ☐ $	Delay ☐

19. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.

SDD/DD	☐	Seismic/Stress Analysis	☐	Tank Calibration Manual	☐
Functional Design Criteria	☐	Stress/Design Report	☐	Health Physics Procedure	☐
Operating Specification	☐	Interface Control Drawing	☐	Spares Multiple Unit Listing	☐
Criticality Specification	☐	Calibration Procedure	☐	Test Procedures/Specification	☐
Conceptual Design Report	☐	Installation Procedure	☐	Component Index	☐
Equipment Spec.	☐	Maintenance Procedure	☐	ASME Coded Item	☐
Const. Spec.	☐	Engineering Procedure	☐	Human Factor Consideration	☐
Procurement Spec.	☐	Operating Instruction	☐	Computer Software	☐
Vendor Information	☐	Operating Procedure	☐	Electric Circuit Schedule	☐
OM Manual	☐	Operational Safety Requirement	☐	ICRS Procedure	☐
FSAR/SAR	☐	IEFD Drawing	☐	Process Control Manual/Plan	☐
Safety Equipment List	☐	Cell Arrangement Drawing	☐	Process Flow Chart	☐
Radiation Work Permit	☐	Essential Material Specification	☐	Purchase Requisition	☐
Environmental Impact Statement	☐	Fac. Proc. Samp. Schedule	☐	Tickler File	☐
Environmental Report	☐	Inspection Plan	☐	_____	☐
Environmental Permit	☐	Inventory Adjustment Request	☐	_____	☐

20. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number/Revision
None		

21. Approvals

	Signature		Date
Design Authority	D.E. Bowers D.E. Bowers	S5-13	4-17-00
Prod ~~Cog~~. Eng.	D.L. McGrew	R3-25	4-7-00
Prod Cog. Mgr.	J.W. Lentsch	R3-25	4-18-00 4-7-00
QA	T.L. Bennington T.J. Volkman	R3-25	4-18-00
Safety	R. J. Fogg		4/18/00
Environ.			4/17/00
Other	C.B. Bryan	R2-58	04-18-00
Prog. Interface	R.W Root	R2-53	4/19/00

	Signature	Date
Design Agent		
PE		
QA		
Safety		
Design		
Environ.		
Other		

DEPARTMENT OF ENERGY

Signature or a Control Number that tracks the Approval Signature

ADDITIONAL

Configuration Management Plan for Tank Farm Restoration and Safe Operations, Project W-314

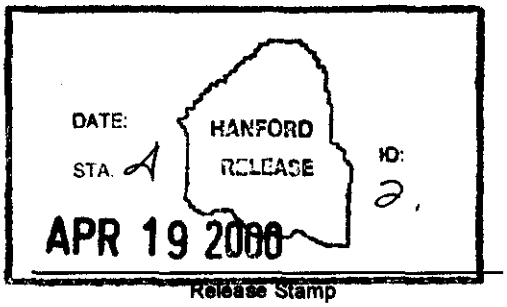
D. L. McGrew
Numatec Hanford Corporation
Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 656162 **UC:**
Org Code: 7C300 **Charge Code:** 109749
B&R Code: **Total Pages:** 11

Key Words: Management Plan, Tank Farm Restoration and Safe Operations, Office of River Protection, Project W-314.

Abstract: The Configuration Management Plan for Project W-314 describes the systems, processes and procedures for implementation of applicable configuration management practices described in HNF-0842, Volume III, Section 3.1, "Configuration Management Implementation". This plan is tailored specifically for use by Project W-314.

Release Approval 4/19/00 Date



Release Stamp

Approved For Public Release

RECORD OF REVISION

(1) Document Number HNF-SD-W314-CMP-001

Page _____

(2) Title
Configuration Management Plan for Tank Farm Restoration and Safe Operations, Project W-314

Change Control Record

(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release	
		(5) Cog. Engr.	(6) Cog. Mgr. Date
0	(7) Released - EDT 606469, 12/15/1995	MA Smith-Fewell	WW Rutherford
1 RS	Direct Revision - ECN 656162	DL MCGrew 4-18-00	JW Lentsch 4/18/00

A-7320-005 (10/97)

CONFIGURATION MANAGEMENT PLAN

For

TANK FARM RESTORATION

AND SAFE OPERATIONS

PROJECT W-314

Prepared for the
U.S. Department of Energy
Office of River Protection
by
CH2M HILL Hanford Group, Inc.

Revised
April 2000

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

CM	configuration management
CMP	configuration management plan
DOE	U.S. Department of Energy
ECN	Engineering Change Notice
FFS	Fluor Federal Services, Inc.
HDCS	Hanford Document Control System
HMI	Human-Machine Interface
CHG	CH2M HILL Hanford Group
LMSI	Lockheed Martin Services, Inc.
MPSS	Master Pump Shutdown System
ORP	Office of River Protection
PICD	Project Interface Control Document
PLC	Programmable Logic Controller
PMP	Project Management Plan
QTP	Qualification Test Procedure
RL	U.S. Department of Energy, Richland Operations Office
RPP	River Protection Project
SCMP	Software Configuration Management Plan
SD	Supporting Document
SSC	Structure, system, and component

1.0 INTRODUCTION

The *Configuration Management Plan for Project W-314* (CMP), HNF-SD-W314-CMP-001, describes the systems, processes and procedures for implementation of applicable configuration management practices described in HNF-IP-0842, Vol. III, Sec. 3.1, *Configuration Management Implementation*. This plan is tailored specifically for use by Project W-314.

1.1 Purpose

The Project W-314 CMP provides an integrated approach to control the technical, cost, schedule, and administrative information necessary to manage W-314's baseline.

1.2 Scope

The CMP applies to both Phase 1 and Phase 2 of execution activities of W-314. The activities covered by this plan are:

- Configuration Management of the cost and schedule baseline
- Configuration Management of the technical baseline
- Configuration Management of the design media in development
- Configuration Management of the design during procurement and construction
- Configuration Management of the design at the end of construction
- Configuration Management of the Project's interfaces
- Configuration Management of the Quality Requirements
- Configuration Management of Supporting Documents
- Configuration Management of "In-Process Information"
- Configuration Management of Control System Software
- Configuration Management of Vendor Submittal Information
- Configuration Management of "Turn-Over Documentation
- Configuration Management of the W-314 RDD-100 Database

2.0 ROLES AND RESPONSIBILITIES

Roles and responsibilities are defined to ensure that functional organizations are aware of the roles and responsibilities required for implementation of the configuration management (CM) program. This section of the CMP identifies general organizational roles and responsibilities related to CM.

2.1 U.S. Department of Energy, Office of River Protection

The Office of River Protection (ORP) shall participate in W-314 CM, as required for the initial project baseline approvals, project baseline change control approvals, and Authorization Basis control and maintenance, as applicable per the following procedures:

- RPP-PRO-1997, *Construction Program Overview*
- RPP-PRO-233, *Review and Approval of Documents*
- HNF-IP-0842, Vol. VIII, Sec. 1.1, *Baseline Change Control*

2.2 CH2M HILL Hanford Group

As the contractor responsible for the RPP, CH2M HILL Hanford Group (CHG) establishes and manages the RPP-specific CM program by developing and establishing requirements and appropriate implementing procedures that address CM responsibilities and process methodologies. Other RPP CM roles and responsibilities are described in HNF-SD-W314-PMP-001, *Project Execution Plan for Project W-314.*

2.2.1 W-314 Project Management

W-314 Project Management shall implement Configuration Management within the boundaries of the Project as depicted in Section 3.0 and as described in HNF-SD-W314-PMP-001, *Project Execution Plan for Project W-314.*

3.0 MANAGEMENT

The management element directs and monitors the development and implementation of the W-314 CMP. The CMP maintains the project scope, baselines, concepts (organizational and physical), and specifies the implementation procedures and methodologies for the project.

3.1 Configuration Management of Cost and Schedule Baseline

The Project W-314 cost and schedule baseline is accomplished using a disciplined change control process in accordance with HNF-IP-0842, Vol. VIII, Sec. 1.1, *Baseline Change Control.* Cost and schedule changes are proposed and processed using the standard change request form, approved at the Project, RPP, or ORP level depending on the significance of the change. Project W-314 change requests are recorded on the Project W-314 Change Control Log.

3.2 Configuration Management of the Technical Baseline

Configuration management of the design baseline is accomplished in accordance with the requirements of procedures RPP-PRO-244, *Engineering Data Transmittal Requirements,* HNF-IP-0842, Vol. IV, Sec. 2.18, *Engineering Release and Approval Requirements,* and HNF-IP-0842, VOL. IV, SEC. 4.29, *Engineering Document Change Control Requirements.* A definitive list of the design baseline documents exists in RPP-6185, *System Engineering Management Plan for Tank Farm Restoration and Safe Operations, Project W-314.*

3.3 Configuration Management of the Design Media in Development

As Title II designs are developed, the in-process design media is periodically issued for review. In order to provide traceability to the design evolution, in-process media is dated prior to printing and reproduction.

3.4 Configuration Management of Design During Procurement and Construction

Configuration Management of design during procurement and construction is accomplished in accordance with the requirements of procedures RPP-PRO-244, *Engineering Data Transmittal Requirements,* HNF-IP-0842, Vol. IV, Sec. 2.18, *Engineering Release and Approval Requirements*, and HNF-IP-0842, VOL. IV, SEC. 4.29, *Engineering Document Change Control Requirements* and HNF-IP-0842, Vol. IV, Sec. 4.20, *Engineering Specification Requiements.*

3.5 Configuration Management of Design During at the End of Construction

Configuration Management of design at the end of construction is accomplished via appropriate field verification of the installed systems, structures and components (SSC); the as-builting of drawings and specifications; and the release of essential and support drawings into the engineering document system for use by the facility in Configuration Management of the facility's SSCs. Revisions are made in accordance with the ECN process detailed in HNF-IP-0842, VOL. IV, SEC. 4.29, *Engineering Document Change Control Requirements*.

3.6 Configuration Management of the Project Interfaces

Interfaces with existing plant SSCs, other projects, and the Program are described in HNF-SD-W314-PICD-001, *Project Interface Control Document for W-314*. Release and approval of this document is accomplished by obtaining the affected organizations' approval. Revisions are made in accordance with the ECN process detailed in HNF-IP-0842, VOL. IV, SEC. 4.29, *Engineering Document Change Control Requirements.*

3.7 Configuration Management of the Quality Requirements

The *Quality Assurance Program Plan for Project W-314* (QAPP), HNF-SD-W314-QAPP-001, describes the requirements for implementing the *River Protection Project Quality Assurance Program Description*, RPP-MP-599. Revisions to the QAPP are made in accordance with the ECN process detailed in HNF-IP-0842, VOL. IV, SEC. 4.29, *Engineering Document Change Control Requirements.*

3.8 Configuration Management of Supporting Documents

As determined by the Project Management staff, miscellaneous reports are released as Supporting Documents when retrievability and structured document control is desired. A list of Supporting Documents issued by W-314 is available through the Hanford

Document Control System (HDCS). The documents are released in accordance with the EDT process identified in RPP-PRO-244. Revisions are made in accordance with the ECN process detailed in HNF-IP-0842, VOL. IV, SEC. 4.29.

3.9 Management of "In-Process Information"

In-Process information consists of direction and correspondence provided to the Design Agent for development of the Title II design. Contractual requirements are communicated through the CHG contracts office. Other direction, such as comments and resolutions from design reviews, will be communicated through CHG Project Management.

3.10 Configuration Management of Control System Software

The Software Configuration Management Plan (SCMP) is currently in development and will provide the instructions for configuration management control of the W-314 Project, Master Pump Shutdown System (MPSS) software. This plan applies to the MPSS software developed by the project, consisting of the computer human-machine interface (HMI) and programmable logic controller (PLC) software source and executable code, for production use by Tank Waste Operations. It will be approved and released in accordance with procedures RPP-PRO-244, *Engineering Data Transmittal Requirements,* HNF-IP-0842, Vol. IV, Sec. 2.18, *Engineering Release and Approval Requirements*, and subsequent revisions are controlled in accordance with HNF-IP-0842, VOL. IV, SEC. 4.29, *Engineering Document Change Control Requirements*.

3.11 Configuration Management of Vendor Submittal Information

Submittal requirements are identified in the construction and procurement specifications. The performing organization responsible for procurement maintains a master submittal log, identifying each submittal by a unique number traceable to each W-314 design package. Submittals that are required for Vendor Information (VI) are managed, released, and revised in accordance with HNF-IP-0842, Vol. IV, Sec. 4.23, *Vendor Information.*

3.12 Drawings

Drawings are prepared and released in accordance with RPP-PRO-709, *Preparation and Control Standards for Engineering Drawings.*

3.13 Configuration Management of "Turn-Over Documentation"

Project W-314 develops an *Acceptance for Beneficial* Use (ABU) for each construction unit to be turned over, as applicable, per HNF-IP-0842, Vol. IV, Sec. 3.12, *Acceptance of Structure, Systems, and Components.*

3.14 Configuration Management of the W-314 RDD-100 Database

Configuration management of the W-314 RDD-100 Database is provided by internal project management controlled by the System Administrator. Approved and released versions of the database will be stored by LMSI. This will be accomplished by releasing the software as a supporting document in accordance with HNF-IP-0842, Vol. IV, Sec. 4.2.6, *Supporting Document Requirements*. The supporting document will include text pages that provide the following information.

a. Project W-314 Application Software and Data. File control information consisting of:

- Directory structure
- File name
- File size
- Date file was created
- Time file was created.

b. Vendor Application Software. Program/file control information consisting of:

- Name of program/file
- Program/file identification number (if applicable)
- Program/file version identification number (if applicable)
- Directory structure
- List of files (name, size, date created, time created).

c. Platform. Platform control information consisting of (as applicable):

- Type of computer
- Type of CPU
- Operating system
- Memory manager and setup if unique
- Minimum memory
- Minimum hard drive size
- Required floppy drive
- Type of network and its setup if used
- Any other unique hardware and software needs.

4.0 REFERENCES

HNF-IP-0842, Vol. III, Sec. 3.1	Configuration Management Implementation
HNF-IP-0842, Vol. IV, Sec. 2.18	Engineering Release and Approval Requirements
HNF-IP-0842, VOL. IV, SEC. 4.29	Engineering Document Change Control Requirements
HNF-IP-0842, Vol. IV, Sec. 3.12	Acceptance of Structure, Systems, and Components
HNF-IP-0842, Vol. IV, Sec. 4.20	Engineering Specification Requirements
HNF-IP-0842, Vol. IV, Sec. 4.23	Vendor Information
HNF-IP-0842, Vol. IV, Sec. 4.2.6	Supporting Document Requirements
HNF-IP-0842, Vol. VIII, Sec. 1.1	Baseline Change Control
RPP-PRO-233	Review and Approval of Documents
RPP-PRO-244	Engineering Data Transmittal Requirements
RPP-PRO-709	Preparation and Control Standards for Engineering Drawings
RPP-PRO-1997	Construction Program Overview
HNF-SD-W314-PMP-001	Project Execution Plan for Project W-314

DISTRIBUTION SHEET

To	From	Page 1 of 1
Distribution	TFR&SO	Date 4-19-00
Project Title/Work Order		EDT No.
W-314, Tank Farm Restoration and Safe Operations		ECN No. 656162

Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
J.B. Bailey	R3-25	X			
D.E. Bowers	S5-13	X			
T.J. Volkman	R3-25	X			
T.E. Nugent	S5-50	X			
J.L. Gilbert	R3-25	X			
C.B. Bryan	R2-58	X			
R.W. Root	R3-53	X			
D.L. McGrew	R3-25	X			
B.L. Syverson	G3-12	X			
J.W. Lentsch	R3-25	X			
R.J. Fogg	S5-12	X			
M.F. Erhart	R3-25	X			
K.B. Ferlan	R3-25	X			
R.R. Bevins	R3-25	X			
D.E. Legare	R3-25	X			
O.D. Nelson	R3-25	X			
J.D. Guberski	R1-51	X			
C.A. Burke	R3-25	X			
N.K. Butler	R3-25	X			
Project Files	R1-29	X			
Project Library	R3-25	X			

A-6000-135 (10/97)